

IN THE CLAIMS:

1. (Presently Amended) A diaphragm~~-type~~ carburetor comprising
an air intake pathway that penetrates a body,
a constant fuel chamber that is provided along one face of the body and contains
a constant amount of fuel by means of a diaphragm,
a butterfly~~-type~~ throttle valve that opens and closes the air intake pathway,
an air-fuel pathway that penetrates the body between the air intake pathway and
constant fuel metering chamber,
an air-fuel ~~a fuel~~ nozzle that supplies fuel introduced from the constant fuel
chamber to the air-fuel pathway and meters air through the air-fuel pathway, the air-fuel
nozzle comprises a pipe with a fuel nozzle disposed therein and an air metering hole
extending there through,
a metering pin having a slide portion inserted in the pipe and a tip thereof
extending from the slide portion and inserted into the fuel nozzle,
a cam member with an arc-shaped cam face centered on a valve stem of the
throttle valve, and
an actuating member that makes constant contact with the cam face and
reciprocates linearly, wherein the metering pin is held by the actuating member and
reciprocates linearly following the opening and closing operation of the throttle valve to
control the amount of fuel supplied from the fuel nozzle and the amount of air supplied
through the air metering hole to the air-fuel pathway.
2. (Presently Amended) The diaphragm~~-type~~ carburetor according to claim 1,
wherein the actuating member has a retaining member, a c-shaped following member,

and a follower in contact with the cam face, the follower is biased against the cam face under the force of a spring interposing the retaining member and the following member, the retaining member has an open-ended, tube-like shape and is disposed in a region on the outside of the cam member, and the follower comprises adjustment screw screwed into a top leg of the following member to adjust the insertion depth of the metering pin into the fuel nozzle.

3. (Presently Amended) The diaphragm-type carburetor according to claim 1, wherein the cam member serves as a throttle lever attached to the valve stem so that acceleration control is transmitted to and opens or closes the throttle valve.

4. (Presently Amended) A diaphragm-type carburetor comprising
 an air intake pathway that penetrates a body,
 a constant fuel chamber that is provided along one face of the body and contains a constant amount of fuel by means of a diaphragm,
 a butterfly-type throttle valve that opens and closes the air intake pathway,
 an air-fuel pathway that penetrates the body between the air intake pathway and constant fuel metering chamber,
an air-fuel a fuel nozzle comprises a pipe with a fuel nozzle disposed therein and an air metering hole extending there through, the fuel nozzle being that is moveably
 mounted within the body and supplies fuel introduced from the constant fuel chamber to the air-fuel pathway,
 a metering pin having a slide portion inserted in the pipe and a tip thereof
extending from the slide portion and inserted into the fuel nozzle,

a cam member with an arc-shaped cam face centered on a valve stem of the throttle valve, and

an actuating member that makes constant contact with the cam face and reciprocates linearly, wherein the metering pin is held by the actuating member and reciprocates linearly following the opening and closing operation of the throttle valve to control the amount of fuel supplied from the fuel nozzle and the amount of air supplied through the air metering hole to the air-fuel pathway.

5. (Presently Amended) The diaphragm-type carburetor according to claim 4, wherein the actuating member has a retaining member, a c-shaped following member, and a follower in contact with the cam face, the follower is biased against the cam face under the force of a spring interposing the retaining member and the following member, the retaining member has an open-ended, tube-like shape and is disposed in a region on the outside of the cam member, and the follower comprises adjustment screw screwed into a top leg of the following member to adjust the insertion depth of the metering pin into the fuel nozzle.

6. (Presently Amended) The diaphragm-type carburetor according to claim 4, wherein the cam member serves as a throttle lever attached to the valve stem so that acceleration control is transmitted to and opens or closes the throttle valve.

7. (New) A compression wave injection carburetor comprising
a body
an air intake pathway that penetrates the body and is coupled to a crank case of

an engine,

a constant fuel chamber provided along one face of the body,

a throttle valve that opens and closes the air intake pathway,

an air-fuel pathway that penetrates the body between the air intake pathway and constant fuel chamber without passing through a valve stem of the throttle valve and is coupled to a compression chamber of the engine,

an air-fuel nozzle that supplies fuel introduced from the constant fuel chamber to the air-fuel pathway and meters air through the air-fuel pathway, and

a metering pin inserted into the air-fuel nozzle and linearly moveable in response to the opening and closing of the throttle valve.

8. (New) The carburetor of claim 7 wherein the air-fuel nozzle comprises a pipe with a fuel nozzle disposed therein and an air metering hole extending there through.

9. (New) The carburetor of claim 8 wherein the metering pin comprises a slide portion inserted in the pipe and a tip extending from the slide portion and inserted in the fuel nozzle.

10. (New) The carburetor of claim 9 further comprising
a cam member with an arc-shaped cam face centered on the valve stem of the throttle valve, and

an actuating member that makes constant contact with the cam face and reciprocates linearly, wherein the metering pin is held by the actuating member and reciprocates linearly following the opening and closing operation of the throttle valve to

control the amount of fuel supplied from the fuel nozzle and the amount of air supplied through the air metering hole to the air-fuel pathway.

11. (New) The carburetor of claim 9 wherein the fuel nozzle is moveably mounted within the body.

12. (New) The diaphragm carburetor according to claim 10, wherein the actuating member has a retaining member, a c-shaped following member, and a follower in contact with the cam face, the follower is biased against the cam face under the force of a spring interposing the retaining member and the following member, the retaining member has an open-ended, tube-like shape and is disposed in a region on the outside of the cam member, and the follower comprises adjustment screw screwed into a top leg of the following member to adjust the insertion depth of the metering pin into the fuel nozzle.

13. (New) The diaphragm carburetor according to claim 7, wherein the cam member serves as a throttle lever attached to the valve stem so that acceleration control is transmitted to and opens or closes the throttle valve.